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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,792	05/04/2001	Christopher S. Churchill	119068-1000	7893

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Sanford E. Warren, Jr.
GARDERE WYNNE SEWELL LLP
Suite 3000
1601 Elm Street
Dallas, TX 75201

EXAMINER	
GLESSNER, BRIAN E	
ART UNIT	PAPER NUMBER
3635	

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/848,792	CHURCHILL ET AL.	
	Examiner	Art Unit	
	Brian E. Glessner	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 April 2004* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,22,23,26,27,29,31-33 and 36-39* is/are pending in the application.

4a) Of the above claim(s) *1-19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20,22,23,26,27,29,31-33 and 36-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

The following office action is in response to the RCE and amendment filed on April 15, 2004. Claims 1-20, 22, 23, 26, 27, 29, 31-33 and 36-39 are pending in the application. Claims 1-19 are withdrawn from consideration as being drawn to a non-elected invention. Claims 20, 22, 23, 26, 27, 29, 31-33 and 36-39 are rejected as set forth below.

Specification

1. The amendment filed on April 15, 2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: that the resin is a polyisocyanate resin comprising phenol or urea formaldehyde. The specification clearly sets forth on page 10 that the resin is either polyisocyanate resin, phenol resin, or urea formaldehyde resin. The disclosure does not state anywhere that the polyisocyanate resin comprises phenol or urea formaldehyde.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 26, 29, 31-33 and 36-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claims 26, 29, 31-33, 36 and 37, the scope of the claims is indefinite because the applicant claims the resin is a polyisocyanate and then claims that the polyisocyanate resin is

phenol resin or urea formaldehyde resin, or that the polyisocyanate resin further contains phenol or urea formaldehyde. This is indefinite because the applicant is changing the limitations already claimed in a previous claim. This is improper. For example, one could not claim that an element is white in the independent claim and then claim that the same element is green in a dependent claim. This is improper. Appropriate correction is required. The claims will be examined as "best understood" in light of the specification. The specification clearly sets forth on page 10 that the resin is either polyisocyanate resin, phenol resin, or urea formaldehyde resin. Therefore, the claims will be examined in light of the specification.

Claim Rejections - 35 USC § 103

1. Claims 20, 22, 23, 26, 27, 29, 31-33 and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruggie et al. (5,887,402) in view of Grantham et al. (6,528,175), the article "**THE RICE STRAW DEMONSTRATION PROJECT FUND**" Proposed Grant Awards For Fiscal Year 1998-99 Presented for the California Air Resources Board's Consideration On April 22, 1999, hereafter referred to as "the rice straw article" and Markessini et al. (6,346,165).

In regard to claims 20, 23, and 26, Ruggie discloses a fire resistant door (column 3, lines 55-62) comprising an inner core 70 comprising a fiberboard in a resin matrix (column 9, lines 30-41), a doorframe 20, and one or more door skins 11, 11A or 31, 31A. Ruggie does not specifically disclose that said core comprises milled rice straw fiber or that the doorframe comprises a fire resistant material. Grantham teaches that it is known to form doorframes and door cores out of a fiberboard material that is fire resistant (column 2, lines 39-55). The rice straw article teaches that it is known to produce fiberboard panels using a rice straw material,

wherein the panels are used for door cores. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the door frame out of a fire resistant material, because if the door is fire resistant, but the frame is not, the fire will merely burn through the frame until the door collapses from lack of support. Therefore, if the frame is made of the same fire resistant material as the door, the entire doorway will have the same fire resistance and will not burn when exposed to the flames.

In regard to the core material, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use rice straw in the fiberboard in place of Ruggie's fiber, because the rice straw is less expensive and also has an inherent fire resistance when compressed. Therefore, the rice straw will provide a better fire resistant core for the door structure than that of a conventional wood fiberboard panel. The examiner would like to point out that Ruggie teaches the use of fibers in a resin matrix.

Ruggie in view of Grantham and the rice straw article further fail to disclose that the milled straw fiber has an average longitudinal length of approximately .125 inches to 1.5 inches. It would have been obvious to one having ordinary skill in the art at the time the invention was made to mill the fibers to the above length, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. By having the length of the fibers within the above range, they will be easier to work with than if they were extremely long or short.

Finally, Ruggie in view of Grantham and the rice straw article further disclose that the resin comprises at least 2% by weight of the door core and less than 10% by weight of the door core, column 9, lines 26-31, and wherein the resin comprises one or more of polyisocyanate,

phenol, or a urea formaldehyde, column 9, lines 31-35. Ruggie, Grantham and the rice straw article do not specifically disclose that the resin comprises polyisocyanate. However, Ruggie teaches that "Numerous useful binders for the manufacture of fiberboard are known in the art", column 9, lines 31-32. Markessini teaches that it is known to use polyisocyanate binders (resins) to bond fiberboard fibers together, wherein the fiberboard fibers could be wood or rice straw, column 1, lines 32-36 and lines 61-65. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a polyisocyanate binder/resin to bind the fibers together to form the panels, because the use of polyisocyanate resins to bond fibers together is well known and widely practiced as taught by Markessini. Further, polyisocyanate will produce a strong panel that has the fibers securely held together.

In regard to claim 22, Ruggie in view of Grantham, the rice straw article and Markessini disclose the basic claimed invention, wherein the door core further comprises a fire retardant material comprising sodium silicate. Grantham teaches that it is known to incorporate a sodium silicate material into fire doors and doorjamb materials, column 2, lines 47-67 and column 3, lines 1-12.

In regard to claims 27, 29, 31-33, and 36-39, Ruggie in view of Grantham, the rice straw article and Markessini disclose the basic claimed invention. Claims 27, 29, 31-33, and 36-39 contain the same limitations claimed in claims 20, 22, and 26. Therefore, claims 27, 29, 31-33, and 36-39 are rejected on the same grounds of rejection set forth above with respect to claims 20, 22, and 26.

Conclusion

2. This is an RCE of applicant's earlier Application No. 09/848,792. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Glessner whose telephone number is 703-305-0031. The examiner can normally be reached on Monday-Friday 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on 703-308-0839. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

B.G.
May 12, 2004

Brian Glessner

BRIAN E. GLESSNER
PRIMARY EXAMINER